

Amendments to the Specification

Please delete the word "Description" at page 1, line 1.

Please insert the following prior to the paragraph that begins at page 1, line 5:

Field of the Invention

IDC-A1,AMD

~~Please insert the following prior to the paragraph that begins at page 1, line 8:~~

Background

IDC-A2,AMD

~~Please insert the following prior to the paragraph that begins at page 4, line 24.~~

Summary

IDC-A3,AMD

Please delete the paragraph that begins on page 4, line 31;

Please replace the paragraph beginning on page 4, line 35 with the following paragraph:

IDC-A4,AMD,M

According to ~~Patent Claim 1~~ one aspect of the disclosure, a line driver arrangement is provided for driving signals via at least one subscriber line, having:

- an input for injecting an input signal and having an output at which a signal which is to be driven via the subscriber line can be tapped off,
- a digital amplifier which produces a pulse-width-modulated signal on the output side from the input signal or from a signal derived from it,
- an analog amplifier, which produces an analog signal on the output side from the input signal or from a signal derived from it,

IDC-A4,AMD,M

- with the outputs of the amplifiers being coupled such that the signal to be driven results from superimposition of the analog signal and the digital signal,
- with the gain of the analog amplifier being matched to the gain of the digital amplifier such that scatter and/or overshoot on the digital signal are at least reduced after the superimposition.

~~18~~

~~Please replace the paragraph beginning on page 5 line 24 with the following paragraph:~~
IDC-A5,AMD,M

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5-24-06

Advantageous refinements and improvements can be found in the dependent claims and in the description, with reference to the drawings.

~~21~~

~~Please insert the following prior to the paragraph that begins at page 7, line 22:~~

Brief Description of the Drawings

IDC-A6,AMD,M

~~15~~

~~Please insert the following prior to the paragraph that begins at page 8, line 22:~~

Detailed Description

IDC-A7,AMD,M

~~7~~

~~Please replace the paragraph beginning on page 9, line 15 with the following paragraph:~~
IDC-A8,AMD,M

The input signal V_i , which is injected via the input 2, is first of all injected into the digital amplifier 6 in digital path 11, and this digital amplifier 6 converts this signal to a pulse-width-modulated signal V_d , which can be tapped off on the output side of the digital amplifier 6. The digital amplifier 6 thus produces the power which is required for data transmission. This PWM signal V_d is then filtered in the filter 12, which is typically a low-pass filter, and is supplied to the

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primary side of the first transformer 13. The transformer 13 uses the digital, filtered PWM signal V_d' to produce an analog signal V_e V_d'' which can be tapped off on the secondary side of the transformer 13. This analog signal in the ideal case forms the output signal V_o which is to be transmitted via the subscriber line 4.

~~Please replace the paragraph beginning on page 9, line 32 with the following paragraph:~~

IDC-A9,AMD,M

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5-24-06

Furthermore, the input potential V_i is first of all supplied to the matching circuit 14 in the analog path 10. The potential V_i V_i' which is produced on the output side of the matching circuit 14 is supplied to the input V_e V_e' of the analog amplifier 10. The output signal from the analog amplifier 5 is transformed via a second transformer 15, and is supplied to the output 3 of the line driver 1. The unit 7 for linking the output signals from the analog path 10 and from the digital path 11 is provided there for this purpose, so that the signal V_e' which is produced from the analog path 10 has the output signal V_d V_d'' from the digital path 11 superimposed on it, with a negative mathematical sign. The result of this superimposition forms the analog output potential V_o .

~~Please replace the paragraph beginning on page 10, line 11 with the following paragraph:~~

IDC-A10,AMD,M

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In addition, a feedback path 16 is provided. The output signal V_o can be fed back with negative feedback to the input of the analog amplifier 5 via this feedback path 16. The feedback path 16 has a divider 18 with a feedback factor f . The analog output signal V_o is thus converted via this feedback factor f to a signal V_o'

IDC-A10,AMD,M

which is derived from it and has the input signal V_e V_i superimposed on it, with a negative mathematical sign, in the unit 17. The signal V_i V_e which is obtained from this superimposition is injected into the input side of the analog amplifier 5. This results in a control loop with negative feedback.

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IDC-A11,AMD,M Please replace the paragraph beginning on page 14, line 26 with the following:

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In the analog path 10 in Figure 3, the outputs of the preamplifier 20 are first of all connected to the matching circuit 14 and, via the series resistors 23, to the differential inputs of the analog amplifier 5. The resistors 23 have a resistance R1. The differential outputs of the analog amplifier 5 are coupled to the outputs 3 via the transformer 13. In this case, the transformer 12 13 once again has a transformation ratio of 1:6. Furthermore, the resistors 24 with a resistance R2 are arranged between the outputs of the transformer 13 and the inputs of the analog amplifier 5.

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IDC-A12,AMD,M Please replace the paragraph beginning on page 19, line 16 with the following:

The analog amplifier 5, which is once again in the form of an inverting amplifier, is connected via the input resistors 42 to the input 2. The differential outputs of the analog amplifier 5 are coupled via the resistance network 40 to the primary side of the transformer 13. The resistance network 40 has taps 43, via which a voltage signal V_s can be injected into the inputs of the digital amplifier 6. The differential outputs of the digital amplifier 6 are coupled via resistors 7 47 to the primary side of the transformer 13.

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Please replace the paragraph beginning on page 20, line 13 with the following:
IDC-A13,AMD,M

The resistance network 40 comprises two measurement resistances 44, which are arranged in parallel with one another with respect to the differential outputs of the analog amplifier 5 and are coupled on both sides via the resistances 45 to one another, crossed over. Two of these resistances 45, which are coupled and crossed over, in each case form a voltage divider in this case, that is includes center taps 43 at which the input potential Vs for the digital amplifier 6 is tapped off. The outputs of the resistance network 40 are, as already mentioned, coupled on the one hand to the primary side of the transformer 13 and on the other hand via a resistor 46 to the inputs of the analog amplifier 5. The resistors 46 in this case once again define a feedback for the analog amplifier 5.